

CLAIMS

1. A micromachine comprised of:

an input electrode and an output electrode disposed on a substrate; and

a band-shaped vibrator electrode formed by laying a vibrating part over said output electrode with a space part interposed between said output electrode and said vibrator electrode in a state in which both end parts of said vibrator electrode are supported on said input electrode and said substrate;

wherein an entire surface of each of the end parts of said vibrator electrode from an edge of each of the end parts to said vibrating part is completely fixed to said input electrode and said substrate.

2. A micromachine as claimed in claim 1, comprised of:

said vibrator electrode is formed of a material capable of being etched selectively without affecting a material forming said input electrode.

3. A micromachine as claimed in claim 1, comprised of:

width of the end part of said vibrator electrode which end part is fixed to said input electrode is greater than width of said input electrode.

4. A method of manufacturing a micromachine comprising the steps of:

forming an input electrode and an output electrode by patterning a first conductive layer on a substrate;

forming an insulative protective film on an upper surface of said input electrode and on the substrate on an opposite side from said input electrode with said output electrode interposed between said input electrode and the opposite side;

forming a sacrificial layer capable of being etched selectively without affecting said protective film on said substrate in a state of covering said input electrode and said output electrode with a surface of said protective film exposed;

forming connecting holes reaching said input electrode and said substrate in said protective film;

forming a band-shaped vibrator electrode having both end parts completely covering insides of said connecting holes, an edge of each of said end parts being situated on said protective film, and having a central part crossing over said output electrode by patterning a second conductive layer formed on said sacrificial layer including the insides of said connecting holes; and

creating a space part between said vibrator

electrode and said output electrode by selectively removing said sacrificial layer.

5. A method of manufacturing a micromachine comprising the steps of:

forming an input electrode and an output electrode by patterning a first conductive layer on a substrate;

forming a sacrificial layer covering said input electrode and said output electrode over said substrate;

forming, in said sacrificial layer, a connecting hole reaching said input electrode and a connecting hole reaching a surface of said substrate on an opposite side from said input electrode with said output electrode interposed between said input electrode and the opposite side;

forming a second conductive layer capable of being etched selectively without affecting said first conductive layer on said sacrificial layer including said connecting holes;

forming a band-shaped vibrator electrode having an edge of both end parts disposed within each of said connecting holes, and having a central part crossing over said output electrode by selective pattern etching of said second conductive layer without affecting said first conductive layer; and

creating a space part between said vibrator electrode and said output electrode by selectively removing said sacrificial layer.